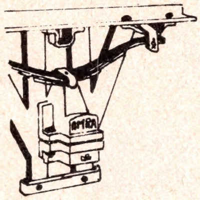

JOURNAL BOX

7/74

VOLUME 23 ISSUE 111

EDITORIAL

Thanks to the efforts of Peter Kingsbury, we now have a printed Journal that has relieved us of some of the more back-breaking work. I trust that the results will justify the additional expense.

We have just about caught up with publication dates, but, as I stated in the Mar./Apr. issue, I have run out of articles. There was only 7½ pages of writing in the May/June issue!! It costs about the same to produce 21 pages of photos as it does to print those 21 pages with articles.

Could I again ask that regular contributions be in my hands by the middle of the even months — the earlier the better. There is between 14 and 21 days delay after I receive them before I can send them to the publisher for paste up. The delay depends on the work the printers have in hand at the time, as Journal typing is fitted in between regular jobs.

Future programmes should cover three months, if possible, to allow for the fact that Journal usually will reach you in the even months.

Rex Little

ON THE COVER

The 21 year old engine, R 761, at Lethbridge, hauling the AMRA 21st Birthday Convention Train.

Photo by Rex Little

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THE SECRETARY'S DESK

I wonder how many comments we will receive, regarding the new look Journal. In common with everything else these days, costs are going up left, right, and centre. We are also having difficulty in obtaining manpower and womanpower to carry out all the jobs that need doing.

Journal will cost us approximately $600 extra a year. Additional advertising would help to defray some of the increase, and then again, some member may have some ideas on how it can be produced at a lower cost. We would appreciate any help in either case.

There is another problem, which appears to concern some of our newer members, and this is the terms, names or abbreviations, used in model railways. When I read the N.M.R.A. Bulletin, there are quite often terms used, that I can only hazard a guess at the meaning. Having been concerned with the local scene for so many years, it seems part and parcel of every day language and therefore it is not easy to visualize what terms would confuse the beginner. I was a bit surprised to be asked once what D/E stood for, yet the person concerned knew of the different Diesels on the N.S.W. tracks.

However, if any member is having difficulty with railway language, we shall be pleased to produce a glossary in the Journal, if they will give us a clue, as to which words give them problems.

With the growing range of freight vehicles coming into use on the various State systems, it could be of interest to members to have a code listing. Have we any member in each State, who could compile such information, to be published in Journal?

For the larger systems this could really be a job, with mixed gauges, standard, bogie exchange, etc., but it would be a very informative listing, especially if plans of the more interesting types could appear as well. A nice job for Winter nights ? ? ?

A Sub-Branch has been formed in N.S.W., the NEPEAN S.B. centred around Penrith. We wish it every success, it is an area with a big potential of modellers.

One wonders how many more Sub-Branches could be formed in areas, where the distance precludes anything but the odd attendance at the State Branch Meetings. We know there will always be the loner, but it is nice to meet fellow modellers and see what and how they model.

Norm Read

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BRIDGES FOR THE RAILWAY MODELLER

by Arthur Robinson

1. INTRODUCTION

Bridges when modelled accurately can be a very pleasing part of the model railway scene. A poorly modelled bridge con detract from the appearance of an otherwise excellent model railway. The small amount of time and effort taken to model a bridge which is prototypical in appearance is rewarded by the admiring glances of visitors.

This series is not intended as a complete guide to railway bridges but merely a basic outline of types and construction methods used, so that the reader may be able to choose the right type of bridge to use on his layout and be able to correctly model it.

One fault most modellers make is to model a bridge without first drawing a plan to work from. I am sure no one would model a locomotive or wagon without a plan.

After choosing the type of bridge required, the modeller should then obtain photographs of a prototype bridge of this type. This can be done by looking around the railway in your area, or even in railway enthusiast magazines or books.

Equipped with photographs of the bridge type desired and some knowledge of bridge types, the modeller can make a drawing of the bridge to be used on his layout and can plan it correctly so that it conforms to correct engineering principles.

A photograph of the desired bridge with a train crossing it can be useful in determining the dimensions of the bridge, e.g., if the span of the bridge is the same as two coaches which are 75 feet long then we know the span is 150 feet. Similarly for a girder height being the same as the running boards of a diesel loco above the rail level, we can determine this distance for the locomotive concerned and this determines the depth of a girder. Photographs having people or any object of which the dimensions are known can be invaluable in determining the dimensions of bridges.

The bridge types discussed in this series are mainly for the Australian modeller. British or American modellers should study their particular prototype before modelling a bridge for their layout.

Bridges on American layouts should be of heavier construction than Australian bridges as axle loads on American railways are much heavier than those used on Australian railways.

Bridges are used to cross roads, other railway tracks and rivers. Bridges that are used to cross roads or railways are usually as short as possible, providing just enough clearance for vehicles that use the road or railway. See fig. 1.1.

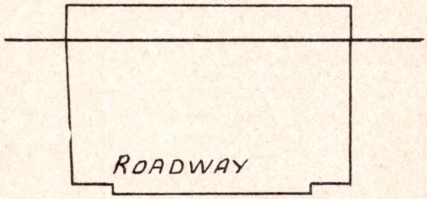


Fig. 1.1

Bridges that cross rivers are always the full width of the stream and may be even longer

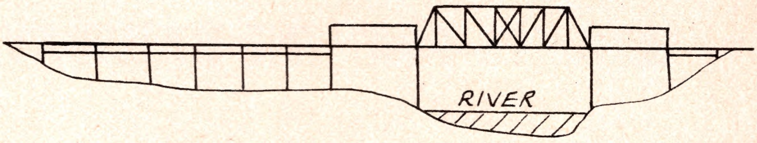


Fig. 1.2

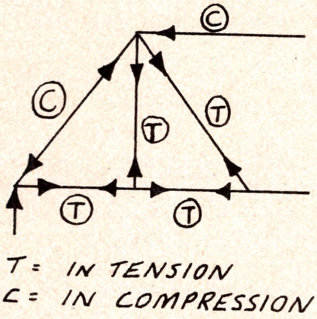


Fig. 1.3

where the river is likely to flood and often are for the full width of the floodplain. See fig. 1.2.

Bridges are also used where it would not be economical to build an embankment. Timber trestles are the type used mainly for this purpose. In Queensland, many trestles are being replaced by embankments with only a pipe or box culvert being sufficient to provide the required waterway.

Before describing the various types of bridges, I will give you some of the theory. For those who are interested, I will try to explain tension and compression. If you pull on both ends of a piece of paper it is said to be in tension. If you push on both ends of a piece of wood, it is said to be in compression. You may demonstrate to yourself the importance of understanding these forces by the fact that when under compression the piece of wood does not give way and withstands the compression forces. If you try to compress the paper it will not withstand any force and will buckle showing that it will not stand compression, it will however resist tension up to a point before it fails. Bridge members have to be properly designed as those members made to withstand tension will not withstand compression.

It is very important that the bridge designer understands the properties of the various materials used and designs bridges that make use of these properties. Materials such as timber and concrete are strong in compression and weak in tension whereas steel has similar strength in tension as compression.

The diagrams in fig. 1.3 show how tension and compression are represented by arrows on the members concerned in force diagrams used by bridge designers. These force diagrams need not concern the average modeller as I will endeavour to describe the forces which will be encountered in each type of bridge and this theory is included only for the modeller who wishes a little more detailed understanding of bridge design and construction.

It will be noted that tension members are mainly simple steel bars or plates, whereas compression members are usually some hollow or spread out section such as rolled steel beams.

This will be further discussed in the section on Truss bridges.

2. BRIDGE TYPES

One basic distinction between bridges is whether trains or other vehicles run on top of the girders or between them. If the trains run on top of the girders, the bridge is a deck bridge as in fig. 2.1. If they run between the

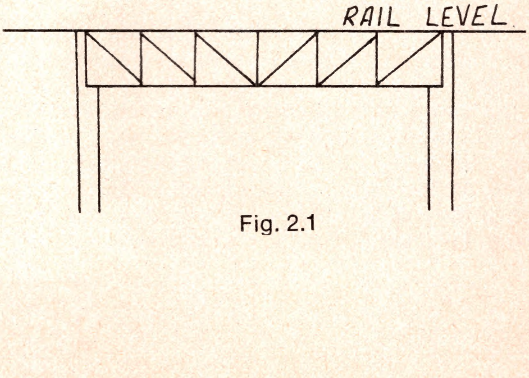


Fig. 2.1

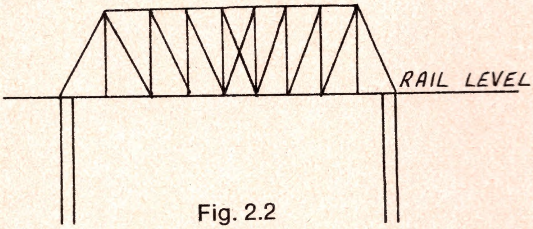


Fig. 2.2

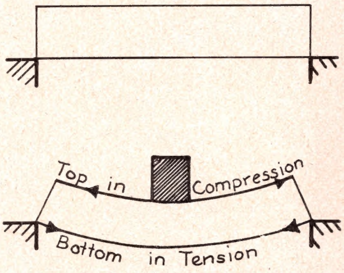
girders, the bridge is a through bridge as in fig. 2.2.

Bridges are also divided into basic types according to how they carry the load. The types vary greatly in construction. They are: —

1. SIMPLE
2. CANTILEVER
3. CONTINUOUS
4. ARCH
5. SUSPENSION

1. SIMPLE

The simplest type is the beam or truss supported only at the ends. This is the most common type in use. When a load is placed on the bridge the top is placed in compression, the bottom in tension and the supports will also be in compression as in fig. 2.3.



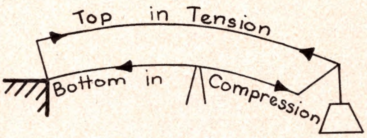
UNDER LOAD

Fig. 2.3

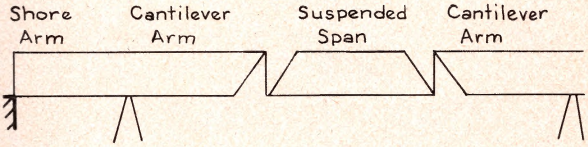
With the basic beam type these forces are of no great concern to the modeller, but they do affect the type of members used in truss bridges and this will be further discussed in the section on truss bridges.

2. CANTILEVER

A cantilever bridge has one end which protrudes beyond its support. See fig. 2.4.



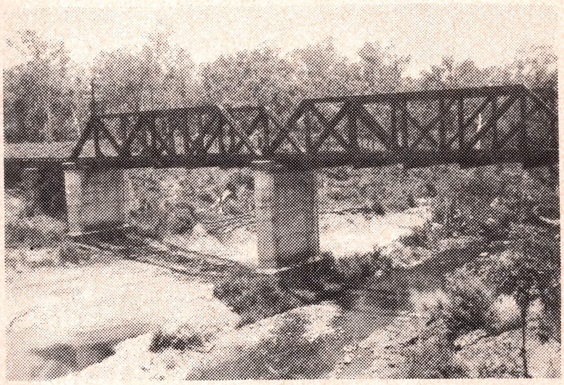
STRESSES IN A CANTILEVER



A CANTILEVER BRIDGE

Fig. 2.4

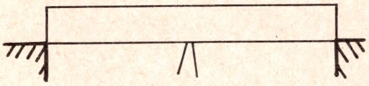
The simplest type of cantilever is a diving board. Note that the forces are opposite to those in a simple bridge. The top is in tension and the bottom is in compression.



Through truss bridge, Saltwater Creek, North of Townsville.

3. CONTINUOUS

A continuous bridge is one in which the girders or trusses continue unbroken over three or more supports. This type acts as both a simple bridge and a cantilever bridge and as the forces are reversed in these types of bridges, they tend to cancel each other in a continuous bridge thus reducing the amount of material needed. See fig. 2.5.

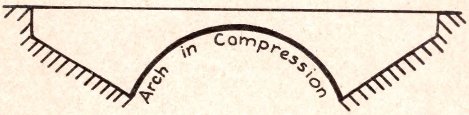


THE CONTINUOUS BRIDGE

Fig. 2.5

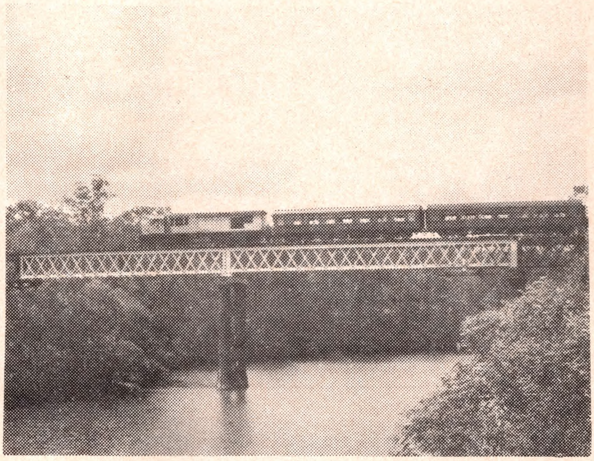
4. ARCHES

Arches are among the most graceful bridges used. The arch depends on compressive strength to carry the load. Arches are usually constructed of masonry or concrete as these materials are much stronger in compression than in tension. See fig. 2.6.

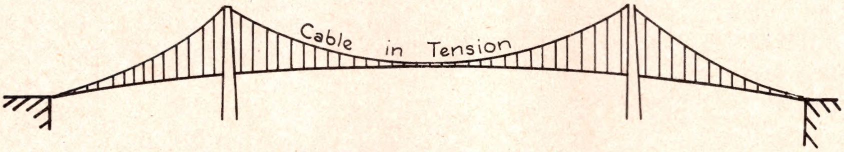


THE ARCH BRIDGE

Fig. 2.6



Q.R. 1270 class D.E.L. crossing Burrum River. An example of a Deck Truss Bridge. Note the painters at work.



THE SUSPENSION BRIDGE

Fig. 2.7

5. SUSPENSION

A suspension bridge makes use of the fact that steel is strong in tension. A steel cable in tension is used to carry the entire weight and a suspension bridge can thus be used to span large distances. See fig. 2.7.

As these bridges are not rigid and will sway in a light wind or under load, they are not suitable for railway use and as far as I know there are no suspension bridges used to carry railways in any part of the world. The only two suspension bridges that were built to carry railways were soon replaced, due to their instability. Anyone who has walked across a small pedestrian suspension bridge will have experienced this instability. As the suspension bridge has no place on a model railway I will not go into further details on this bridge except to say that the "TRIANG GRAND SUSPENSION BRIDGE" is completely unsuitable for model railway use.

BOTH SIDES OF THE LINE

by Greg O'Flynn

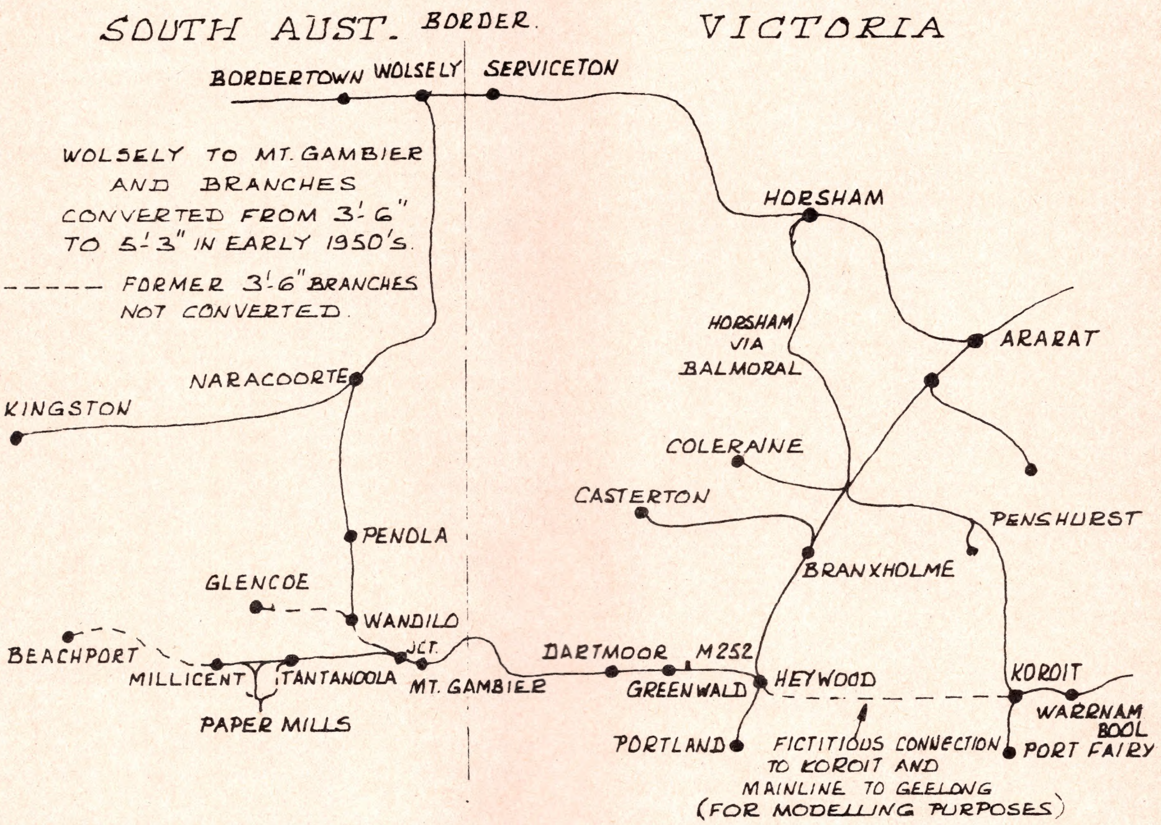


DIAGRAM OF LINES IN AREA OF SOUTH EAST OF SOUTH AUSTRALIA AND SOUTH WEST OF VICTORIA.

This is a look at the lines in the south west of Victoria, and the south east of South Australia. Also their adaption to model form in order to give a chance to run both types of locos and rolling stock. It also compares, (I hope), the two types of systems in their safe working, station layouts, buildings, and methods of train running.

I have covered the South Australian Side first, then the Victorian Side, and finally the model adaption.

The paradox is that the mainline from Ararat to Portland has not long been relayed, and in the middle 1960's the signal boxes at Hamilton were abolished and not replaced with interlocks, but with a mixture of Annet locks, plunger locks, and some motor operated points. The boxes abolished were Hamilton Box, a small 25 lever frame box in the yard crosslocked with the main box, and Coleraine Junction which gives access to the loco depot, as well as Koroit, Portland, and Coleraine. The Balmoral to Horsham line originally junctioned in the yard.

The Loco Depot at Coleraine Junction was abolished. The turntable was cut up for scrap. A Diesel Loco Depot was built with a minimum of facilities — crew offices, fuel and sand house. The oil fuel and coal stage at Heywood, and the turntable, were removed in the late 1960's. This may be compared with the S.A.R. facilities at Mt. Gambier, where the loco depot, together with the turntable, is in everyday use for loco and other traffic purposes.

Naracoorte has its loco shed and electrically operated turntable in use, and also the interlocking frames are in use in the boxes, although there are differences in the interlocking practices in the two States.

The article has been written from my general observations and notes taken over a few years, but if anyone has other information on the area it would be welcomed as my visits to the areas in South Australia are rare because I live in Warrnambool.

For the benefit of members in other States, I have listed below the various types of Diesel Locos in use on the lines mentioned.
They are:—

S.A.R. 900 class A.I.A.-A.I.A., built by English Electric and S.A.R. shops, 1580 HP, cab type. S.A.R. 930 class, Co-Co, Goodwin-Alco, 1600 HP, cab type. This class also has a "hostler" cab at the end other than the nose, so it can be operated without turning. It is similar to the N.S.W. 44 class. S.A.R. 830 class, Co-Co, Goodwin-Alco, hood type. This class is similar to the N.S.W. 48 class.

V.R. T class, Bo-Bo, Clyde-GM, hood type. The horsepower varies between 850 and 1000, depending on the model. V.R. B class, Co-Co, Clyde, 1500 HP, double cab. UR X class, Co-Co, Clyde, 2000 HP, hood type.

Railcars Ararat to Portland
VR DRC 40 or 41 — Air conditioned, Tulloch built, stainless steel construction, passenger and van accommodation.

SAR 250 class power car, passenger and van accommodation.
100 class trailer, passenger accommodation only.
Similar in appearance to Budd railcars, but roof outline different.

Station diagrams for the South East of South Australia, from Mt. Gambier to Naracoorte and Millicent. Covering the smaller stations and sidings, from small passing loops, to junctions and main yards.

WANDILO (Fig. 2), is a small passing loop about 7 miles from Mt. Gambier, and is an automatic electric staff station, unmanned, and under train order control by direction of the Train Controller at Mt. Gambier. The signals are approach lit. The electric staff section is Mt. Gambier Junction — Wandilo, and a sample train order reads as follows. The order is an actual one, applicable to the 8-10 Blue Bird railcar bound for Adelaide. The order is issued at Mt. Gambier as Mt. Gambier Junction is the train order issuing point for the Millicent line.

TRAIN ORDER No. 14 Date 3-6-69

To Motorman train No. 600, car 260, at Mt. Gambier Station.
Take passing siding at Wandilo, cross goods 547, engine 950

Received at	Mt. Gambier Time 8.02 a.m.
Repeated at	Mt. Gambier Time 8.03 a.m.

Going north, the next town of size is Penola. (Fig. 3). Between Penola and Wandilo part of the way passes through the pine forests of the south east of South Australia and the grazing land of this rich area of the State. The Penola Station is off the highway, and in the town is the old narrow gauge station. The broad gauge station was erected in 1953. The station (Fig. 4) is unusual in that the office is separate from the platform and completely at ground level. Only a van shed is on the platform. The goods shed (Fig. 5) is of the usual South Australian variety, made of corrugated iron, covering the track and the vehicle placed at the shed. The signals are

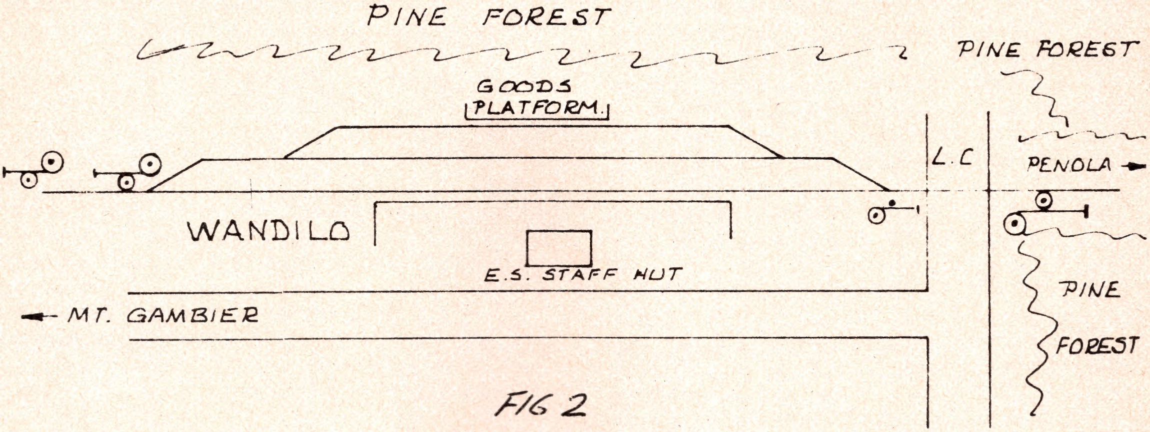


FIG 2

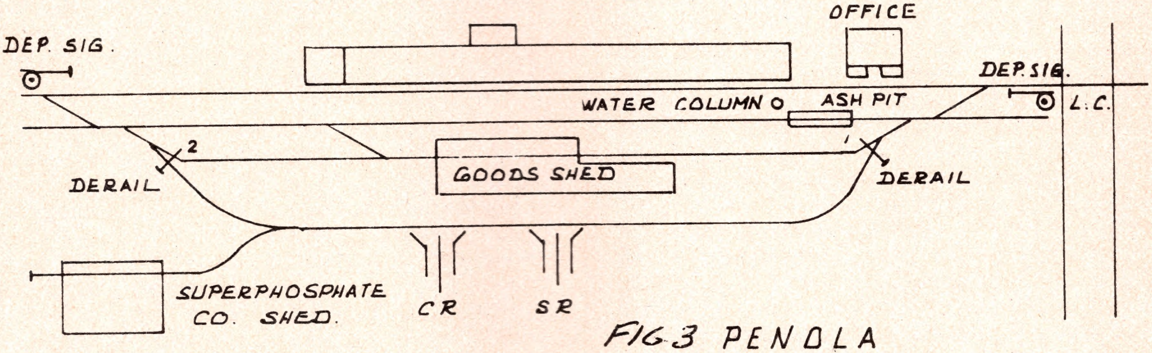


FIG 3 PENOLA

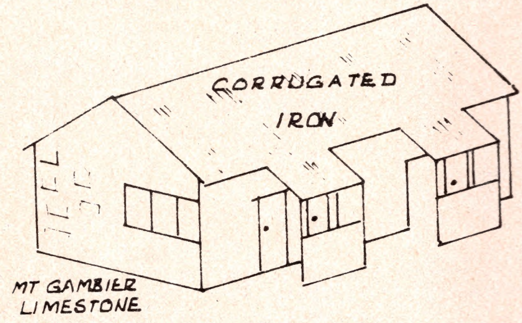


FIG 4 PENOLA STATION BUILDING

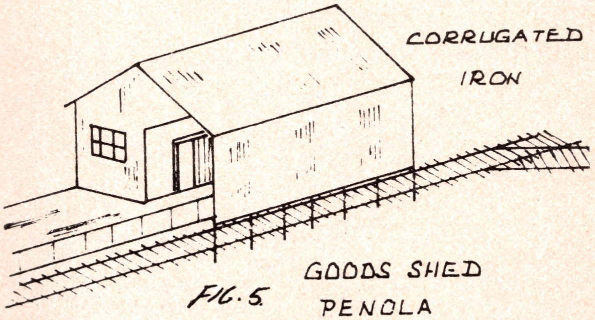


FIG. 5 GOODS SHED PENOLA

approach lit, and the points leading to the No. 2 road and sidings, are controlled by hand levers, of more an American pattern than Australian, and are padlocked in situ. A combination derail is rodded across No. 3 and 4 roads. The water crane is of an American type, favoured by the SAR and also seen in Victoria and N.S.W.

After leaving Penola, we pass through the wine growing around Coonawarra, and then through more grazing country until we reach Naracoorte (Fig. 6). This is a sizeable town, and the junction for the line to Kingston. As a junction Station, Naracoorte has a signal box contained in the station buildings (Fig. 7) upon the platform. There is a siding to several Agricultural Companies, which handle grain, stockfood, and superphosphate. The loco depot has a two stall roundhouse and 85′ electric turntable. The overhead coal stage was removed in 1970. The site of the old 3′ 6″ gauge loco depot is discernible in the Station yard near the Agricultural Companies' sidings. A small section of 3′ 6″ gauge track is still in place at the rear of one of the roads in the loco depot. Preserved in the park behind the Station and loco depot are two 3′ 6″ gauge locos. Extensive sheep loading races are provided in the yard. Points are motor operated for long distances, and the signals are colour light except for the Train Order semaphore which has a manual arm. The position of the signal cabin is unusual, in that it is part of the station building, and at a raised level. Entry is through the Station Office, as no outside door is provided to the box.

Mt. Gambier Junction (Fig. 8) is situated about 1 mile (1.61kM) from Mt. Gambier Station, and controls the junction to Adelaide or Millicent, the stock yard sidings, and the marshalling yard. Mt. Gambier Box controls the other end, plus the connection to the goods yard and loco depot (Fig. 9). The electric section is from the junction to the station, though connection can be made via the marshalling yard. The junction is the train order point for the Millicent line, and is of Mt. Gambier limestone block construction, which is extensively used in the south east of South Australia for buildings.

The wash dock is for cleaning cattle or sheep wagons, and is contructed of a concrete apron surrounded by retaining walls, suitable drains, and with the rails raised slightly above ground level. High pressure, heavy duty hoses are used for washing purposes.

All types of bogie exchange rolling stock, VR, SAR, WAGR, CR, and NSWGR, may be found in the marshalling yards. These wagons are used for paper traffic from the mills at Snuggery, near Millicent, and also for Pyneboard. The Pyneboard is loaded in the Mt. Gambier loco depot, where some of the covered roads in the 10 stall roundhouse are used. Stored in the roadhouse is the breakdown train consisting of

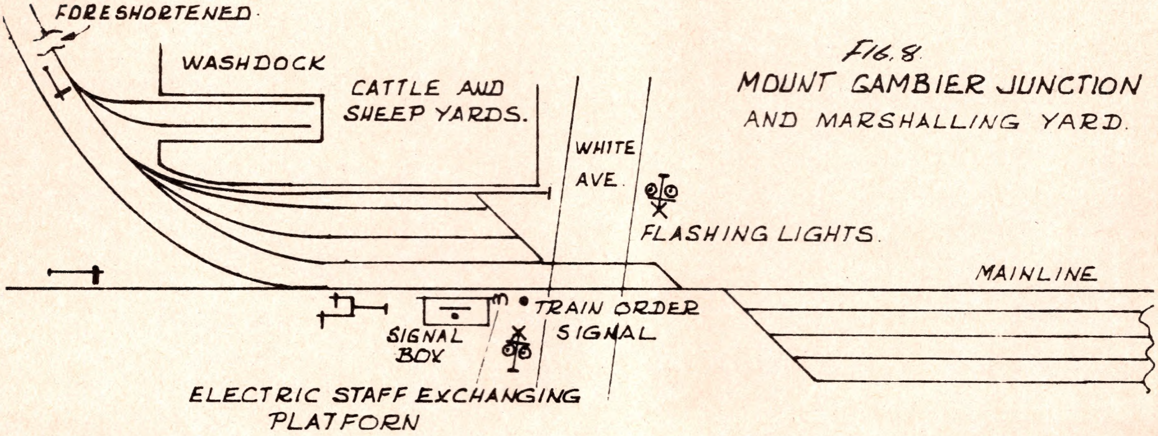
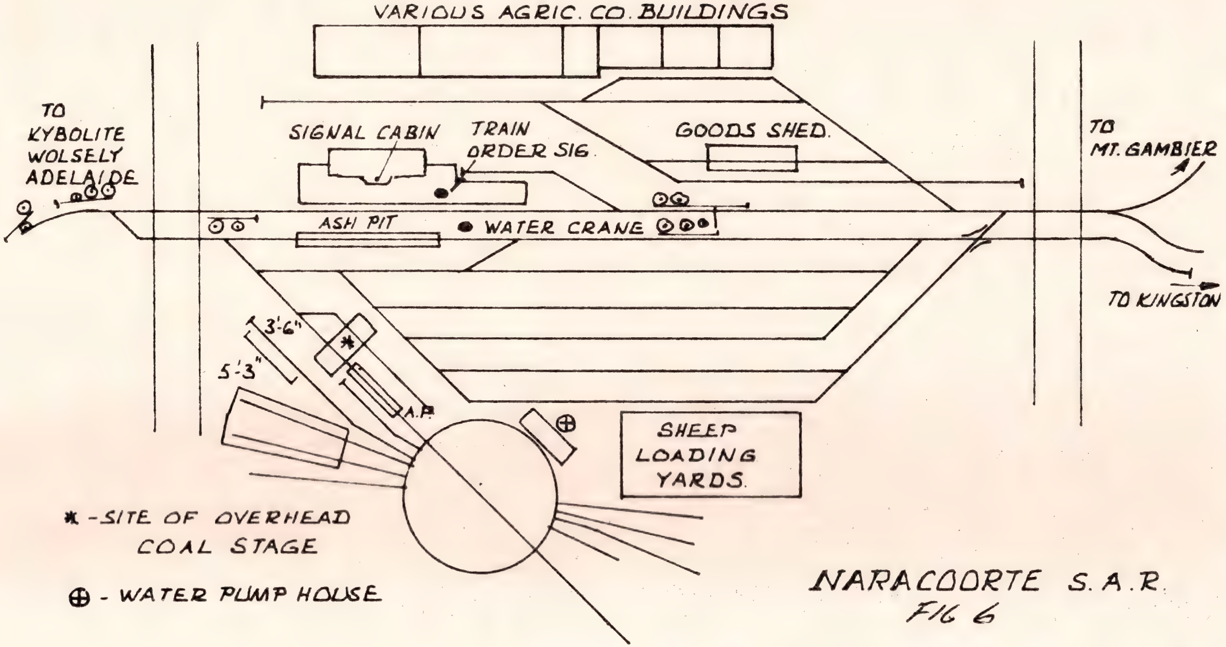
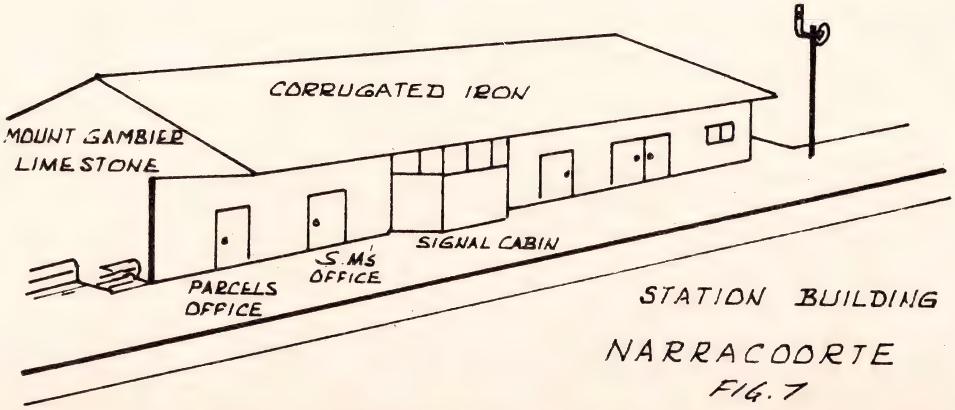


FIG. 8
MOUNT GAMBIER JUNCTION AND MARSHALLING YARD.



NARACOORTE S.A.R.
FIG 6



STATION BUILDING

NARRACOORTE
FIG. 7

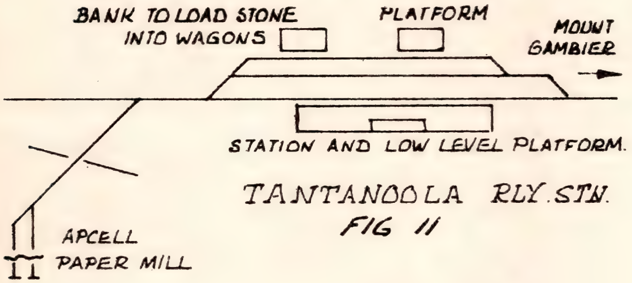
an M class SAR bogie van, and a caboose type brakevan introduced on the SAR in the 1930's. In the marshalling yards can be found one of the SAR 4400 type composite brakevans, which has ground loading steps, passenger accommodation at one end, van goods at the other, and a centre cupola. This van could be for use on the Millicent line, as 8300 type vans are used on the mainline.

Mt. Gambier station is quite a large building, with the two storey signal box at the Up end of the platform. The buildings are all of local limestone, except for the goods shed, which is of corrugated iron. The line approaches across the Well Street crossing into the station yard, and the line to Victoria continues across Bay Road to the border where the VR track commences. From the border to The Mount, as the town is locally known, the track is owned by the SAR, with the VR having running rights.

As can be seen in the diagram (Fig. 10), the yeard and station facilities are more than adequate. Trains for Victoria depart from The Mount via the station yard, where the brakes are tested and the staff for Dartmoor is collected from the signalman in the box. The mainline diverges from "A" to the platform and dock roads, and to roads 1 to 5. "B" leads to 6 road, the back roads, and to 5 road via the crossover. Going the other way, "B" leads to "D", the weighbridge road, marshalling yard, and loco depot. "A" leads to the crossover to "B", the loco and marshalling yards, or to the mainline and Mt. Gambier Junction via "C".

Figures 11, 12 and 13, are the details of some of the stations on the Mt. Gambier Junction to Millicent line. Sidings are also laid to the Limestone quarries between the junction and Tantanoola, but I have not visited them. Ballast for the South East Division was apparently loaded at Tantanoola when relaying took place. The signalman at Mt. Gambier told me that years ago a triangular connection was put in at the Junction to facilitate ballast working, but it was removed when the ballasting was finished.

Switchstands with indicators are in position at Snuggery, and the line is worked under the


BANK TO LOAD STONE INTO WAGONS
PLATFORM
MOUNT GAMBIER
STATION AND LOW LEVEL PLATFORM.
APCELL PAPER MILL

TANTANOOLA RLY. STN.
FIG 11

Fig 12

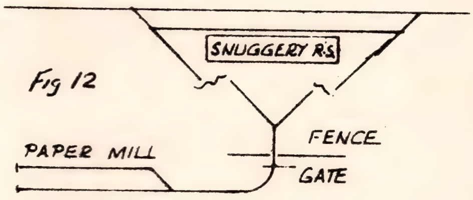
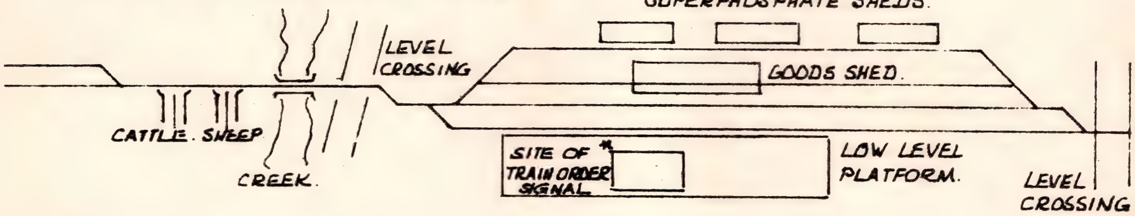
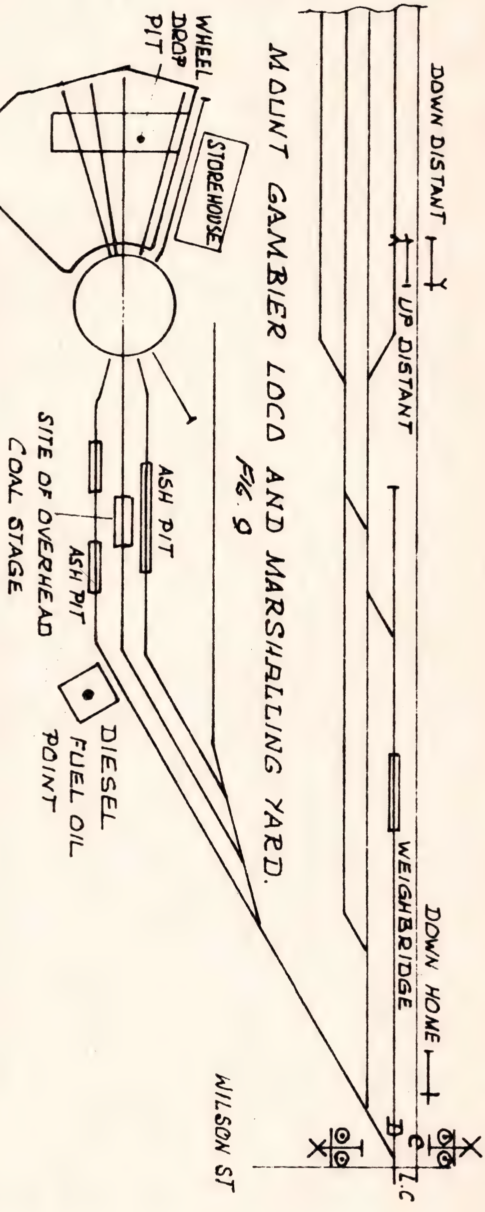


FIG. 13 MILLICENT S.A.



MOUNT GAMBIER LOCO AND MARSHALLING YARD.

FIG. 9



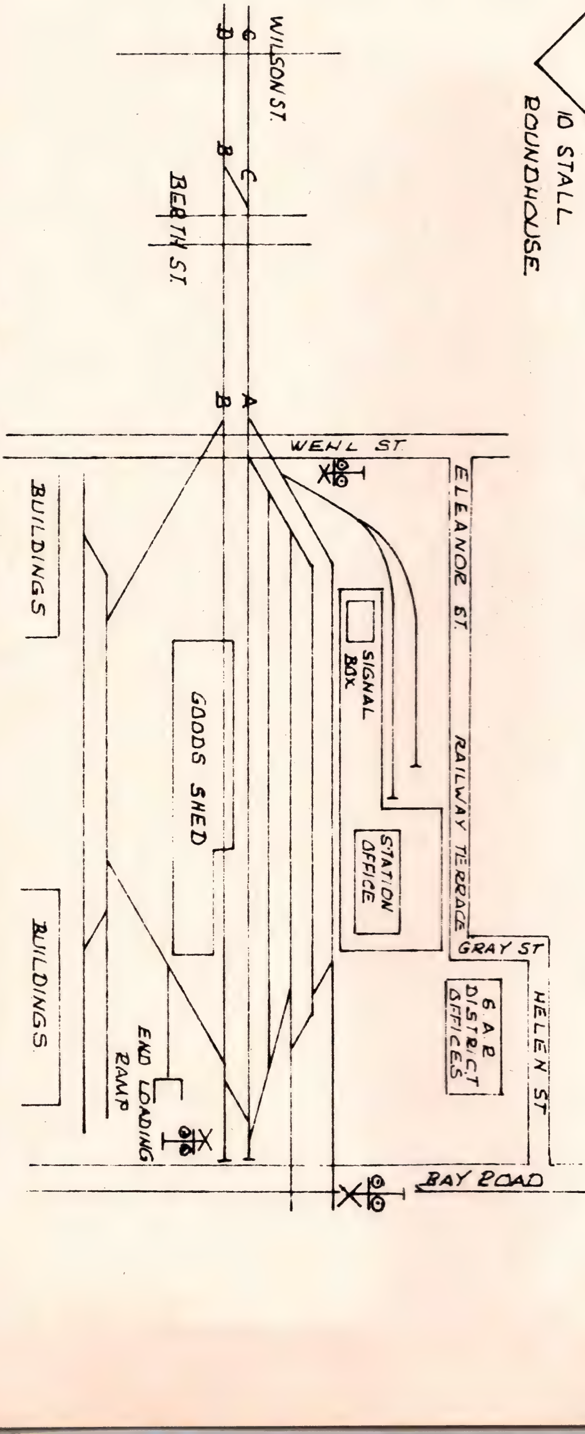


FIG. 10 MT. GAMBIER STATION AND GOODS YARD.

Train Order system. I don't know the Goods train timetable, but a daily service is provided Monday to Saturday, using a 4400 class composite Van with passenger accommodation as no passenger service is provided. Loco power seems to be the 830 class Goodwin-Alco branchliners, but no doubt other classes could be used on the train.

I regret that I can give no details of the Mainline goods service on the S.A. side, as my family's patience has a limit, and I did not have time to get hold of the working timetable for the S.E. Division of the S.A.R. Thank goodness for my wife Janice's patience, plus the fact that the children liked to go for a walk with Dad and have a look.

To be concluded in the next issue.

****

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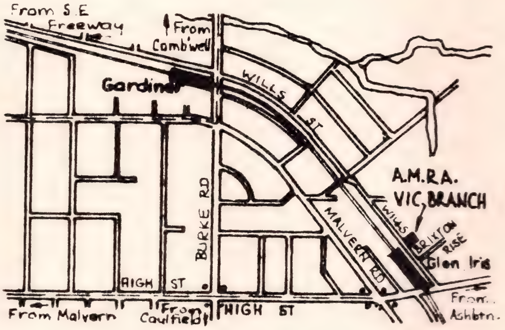
Branch Reports

VICTORIAN BRANCH NOTES



Club Night meetings are held on the Second Thursday of each month, at 92 Wills Street, Glen Iris, commencing at 8 p.m. The Clubroom is open for work on the Club Layout EVERY Wednesday night. Scratch Builders meet at the Clubroom, on the First and Third Wednesdays of each Month. Crazy Whist nights are held at the Clubrooms on the First Saturday of each month, commencing at 8 p.m.

Our Club layout has reached a stage where continuous running and some switching can be carried out. To allow members to use this facility the clubrooms will be opened at 7 p.m. on meeting nights.

Wednesday night is layout construction night, and the lower hall is open every Wednesday for this purpose. Trains may be run, so long as those attending are prepared to first devote some of their time to construction duties. The Layout Co-ordinator, Noel Ryan, will welcome offers of assistance.

If you are interested in scratch building, come along on the first and third Wednesdays when Terry Jenkins holds a modelling clinic, which it is hoped will produce many fine models, some of which will be displayed on the club layout.

Working Bees are an essential necessity if we are to keep our Clubroom property properly maintained, but unfortunately attendance is poor. John Treseder arranged a barbecue working bee for 23rd June which brought a few new faces, but the same old few seem to have inherited a lieftime job of looking after what is probably the finest Model Railway Clubrooms in Australia. What about contacting John with an offer to help share the load.

Our 1975 Exhibition Organiser is offering first choice of duties at the Moomba Exhibition next March to early volunteers, on the basis of nominating when you can attend, and what you would like to do. Now is the time to volunteer your services to Brian Chester, so he will be able to allocate you the job you feel you can best do.

The Agenda for the next three months is as follows: —

AUGUST
Sat. 3rd: Crazy Whist at Clubrooms.
Wed. 7th: Scratch Builders meet at Clubrooms.
Thurs. 8th: Club Night: Members Slide Night — 5 slides per member.
    Competition — Model of Flat Wagon — any prototype.
    Running on Club Layout, before and after Meeting, B.Y.O. Train (HO/OO).
Wed. 21st: Scratch Builders meet at Clubroom.

SEPTEMBER
Wed. 4th: Scratch Builders meet at Clubroom.
Sat. 7th: Crazy Whist at Clubroom.
Thurs. 12th: Clubnight: Guest Speaker from the Victorian Railways.
    Competition — Photograph of a Railway Signal.
    Running on Club Layout, before and after

Meeting, B.Y.O. Train (HO/OO).
Wed. 18th: Scratch Builders meet at Clubroom.

OCTOBER
Wed. 2nd: Scratch Builders meet at Clubroom.
Sat. 5th: Crazy Whist at Clubroom.
Thurs. 10th: Club Night: Our Guest Speaker will talk on Adhesives.
Competition — Model of a Railway Station, including the Pass. Platform.
Running on Club Layout, before and after Meeting, B.Y.O. Train (HO/OO).
Wed. 16th: Scratch Builders meet at Clubroom.

The Ladies' Auxiliary organised a very successful Family Night on 27th April last, when members and their families and friends (a total gathering of 150 people) defied inclement weather to attend.

The Ladies' Auxiliary is very grateful to A.M.R.A. member Mr. John Gardner, who showed two interesting and colourful films of his travels in Asia. Mr. Jones, a very competent magician and ventriloquist, entertained an appreciative audience of children and adults for a 30-minute segment in the programme.

Supper was served on completion of the programme.

A total of $52.10 was raised at the Family Film Night and these funds will be used to defray expenses for the Children's Christmas Party on Saturday, 14th December, 1974.

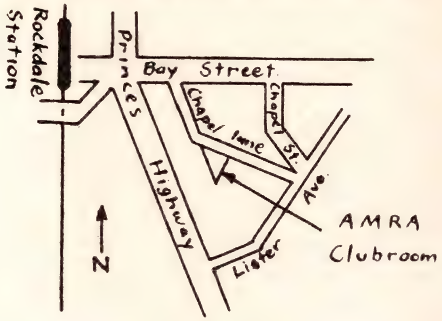
The Auxiliary would be pleased to hear from members or ladies who have any ideas or suggestions to make the Children's Christmas Party a success.

On the first Saturday of each month, members and friends enjoy an evening of Crazy Whist at the Clubrooms, Wills Street, Glen Iris. Play commences promptly at 8 p.m. and admission fee for gentlemen is 40c, whilst lady players are asked to bring only a plate of supper.

For further information, ring Eric Doherty on 45-7123.

John J. Harry, Hon. Sec.

NEW SOUTH WALES BRANCH NOTES



Meetings are usually held on the first and third Saturday afternoons in the month, and the second and fourth Fridays. Details of coming meetings are listed below.

AUGUST
Sat. 3rd: Car Rally to Loftus Tram Museum. See Notice Board for details.
Fri. 9th: Modelling Clinic
Sat. 17th: Layout Operation
Fri. 23rd: Slide Competition — Limit of 3-5 slides from each competitor, to be submitted by 8.05 p.m.

****

QUEENSLAND BRANCH REPORT

The April meeting was the Election of Officers, which was disposed of in record time. Those lucky (or unlucky) to be elected were: —

President: Eric Lyon
Vice-President: Jim Fainges
Secretary: Malcolm Neilsen
Treasurer: Rodger Kershaw
Reporter: Jim Christie

Entertainment was provided by Graham Wilson, a deserter from our ranks, who now plays with twelve inch to the foot scale trains. Graham screened a number of Railway Department films including "Muscles in Motion" and one made twenty years ago of the Queensland Railways brand new Beyer-Garratts.

Dave Williams hosted us for the May meeting and talked of the Victorian Railways and showed his own films of both the broad and narrow gauges.

Additional meeting dates are: —
September 26th: Rodger Kershaw,
57 Bargo Street, Arana Hills
Weathering of Locos, Wagons and Coaches
October 24th: Keith Anderson,
40 Sloane Street, Stafford Heights
Layout Operation
November 25-30th: Hobby Exhibition, City Hall

Jim Christie, Branch Reporter

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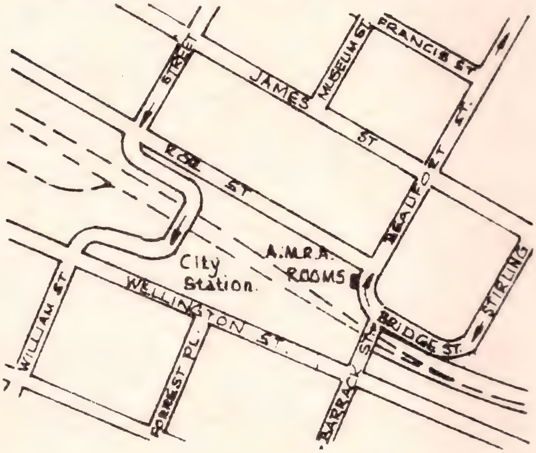
WESTERN AUSTRALIAN BRANCH NOTES



Club night meetings are held in the Clubroom, 1 Beaufort St., Perth, on the FIRST Monday of each Month. Working Bees on the layout are held on the two Saturdays per month as indicated on your quarterly programme.

At our A.G.M. at our Clubrooms, No. 1 Beaufort Street, Perth, held on the 6th May, the fololwing new committee were elected: —

President: Tony Gray
Vice-President: Ron Congdon
Secretary: Jack Eagles
Treasurer: Marge Durham
Committeemen: Gus Durham,
David Williams, David Robinson.

The meeting was attended by 17 members and three visitors and Keith Robinson very kindly acted as Chairman. While on his visit to our branch Keith donated some very fine posters of steam locos and also brought along a book "Memories of Steam", for our library, and some Posters donated by Keith Wilcox. I would like to say thanks on behalf of all our members for these donations.

The highlights of our forthcoming programme will be a film and talk by Mr. Morris of the W.A.G.R. public relations dept. to be held at their offices on the 5th August at 8.00 p.m., also a visit by our members to the Castledare Miniature Railway on the 19th August for an afternoon of live steam.

The Club lay-out is now progressing well and all but six feet of the track-work has been completed. All this work has been carried out during our Saturday afternoon meetings which have been arranged specifically for work on the Club Lay-out. Ron Congdon has started the building ball rolling with a fine model of a station building, goods loading facility which includes a scratch-built crane. Hope this will encourage others to follow his good example.

For further details ring Jack Eagles, on 60 5005.

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SOUTH AUSTRALIAN BRANCH

Although the South Australian Branch is not yet formed, the S.A. Representative is Wal Bennett, 6/42 Wright Street, Renown Park, Adelaide, 5008.

ARRANGING A TRIANG LEVER FRAME

by E. G. Watson

Before dealing with the arrangement of the levers on the frame, there are several aspects of wiring that can make the job easier, I would like to mention. On my new layout I have taken two single wires right around the layout from the transformers, one for points, and one for signals. These wires can quickly be bared and leads from them to the points or signals tied in. Similarly a double wire from each control unit goes around the board. Each wire is marked for quick identification. I am finding this system quite good and quick.

When the levers are wired, the result we want is that with the levers "in" the frame, that is towards the side the two wires enter, all colour light signals are red, all points set for the straight road, and power "off" on all isolated sections. There are exceptions to this, which would take complicated explanations plus diagrams to explain. For example one of my Isolating Track Switches is normally out of the frame (towards operator). If for some reason your points are not normally set for the straight road, the wires should be reversed so that all levers for points are "in" the frame for the road they normally are set for. This means that at a glance I can tell if any of about 100 levers are in their "normal" position or reversed.

The exception will have a bright red handle. Having ascertained the result we want from wiring the frame, the next question is in what order do we want the levers for the best way to work? I still think the best way for a small number of levers is to have them in the order the train passes or requires them.

1. That is — mainline isolating track if required.
2. Where a signal protects points the point lever would be first; then the signal lever.
3. Where points lead to a yard, the point levers in order would be placed next to the point lever loading from the mainline.

I used this system for several years and found it excellent. This system is quite workable so long as no additions are being made. Once it becomes necessary to add to it the difficulties of re-arranging the levers and wires can make the job quite tedious.

One idea I tried was arranging each type of lever in blocks, Greens, Yellows and Blacks. During re-construction this proved well worth while, but once full scale operations were commenced it proved to be tedious picking out the different levers and requiring too much attention. For my new layout, a combination of these two systems is being used, and so far seems quite successful.

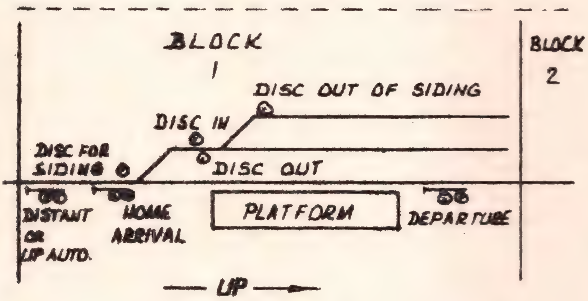
The whole layout is divided up into 4 parts. Each part has its own "block" of levers. The first block is quite long — it will have over 50 levers. The requirements of this block are known, therefore the levers can be arranged as described first. As this block will not be added to, no problem arises. Block 2 is partly known so that the levers can be arranged to that point. 3 and 4 are more or less unknown. A couple of points have been wired for testing purposes, but they can be changed easily when the time comes. Blocks 2, 3 and 4 will be short blocks of levers so that a minimum of work will be involved if any re-arrangement is needed.

The track is laid out mainline and mainline points leading to sidings. As I am using points, motors and lights from my old layout, this system is OK so far.

As it will cost about $100.00 for the remainder of the electrical equipment and points blocks. 3 and 4 will vary slightly from 1 and 2, the mainline and points leading from them will be laid first and the other sidings later. This poses no great problems. The new levers can either be inserted next to the lever for the mainline points, or as a separate unit at the end.

I would recommend this system to anyone building a layout, but not knowing just how many points or signal levers will be required. The blocks are arranged in the order the train would pass over them. The last signal in each block would be the starting signal which permits the train to enter the section ahead.

The arrangement would be: —



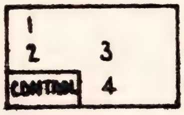
We would have: —

Isolating Track (if requiring) up auto Disc Home arrows, Yard points and discs and departure.

2 or more stations could be included in one 'block' if required.

The planning steps required: —

1. View the layout as a whole. If you cannot plan the order of the various levers divide the layout into blocks.
2. Plan the blocks on your base for the frame. One wire from the transformers will be needed for each block. I merely put 4 wires into one lug each a bit longer than I estimated it need be and put on the plugs as required. If possible wire all accessories in order required, so that existing wires to frame are disturbed as little as possible.



Finally a hint for testing point wires which saves a lot of messing around. Usually, if not in all cases, they will reach from the frame to the points across the top of the base board. If they give trouble take them out, put into a yellow lever frame section and into a colour light signal, that is known to work. Both lights block — both wires bad, one light on — one wire bad. I am wiring up a lever and light so that all my point wires I make up myself can be tested this way. I don't know why it is but I can wire colour light signals by the dozen without any trouble, but points ! ! I think that most of the trouble comes from variations in the point lever frame sections, and changes in the Triang plugs over the years. When in desperation I finally tried out this idea I found several sets of leads worked the lights OK but would not work the points. I then abandoned hope of salvaging the leads for the points from the old layout. I used them for the lights and made up new leads, modified the new type plugs, and wired up eight sets in the time it took me to do two when trying to get the old leads right.

For anyone rewiring points that have lever frames that have been purchased over the years — WATCH OUT if you use the new type plugs. Work in a room free of noise or smells. If you hear a slight buzz or smell burnt plastic, switch off power immediately. Cut about ¼″ off the plug. I do this first anyhow; then keep feeling the point motor for five minutes to make sure it doesn't heat up.

****

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A CRANKPIN BOSS DRILLING JIG

R. C. Grace

Having decided to construct a number of locomotives using readily available components, I sat down to consider the problems associated with chassis construction. In order to have a free running unit, one of the essentials is to ensure that all crankpins are as near to the same distance from the wheel centre as possible. I had decided to utilise "Romford" wheels and axles and these presented a relatively simple answer to the problem. Using the square on the end of the axle for location and the wheel nut for clamping the wheel in place, ensures that each wheel will be drilled in the same position every time.

Turning now to the drawing, we can see that my jig was made from material 1½″ wide by ½″ thick. There is nothing critical about these dimensions and anything thicker than ⅜″ and wider than ¾″ will suffice. I might mention here that the material was cold rolled flat steel bar (also known as bright mild steel). If you wish to make a similar jig the following are the steps I took.

Firstly select your piece of material that is free of burrs, lumps and bumps, and cut off a piece 3½″ long. Then while you still have the saw in your hand carve off two more pieces ¾″ long. File up the sawed surfaces to clean and remove burrs. Now take the long piece and mark out the position of all holes. Centre pop all the intersection points and you are now ready for a spot of drilling.

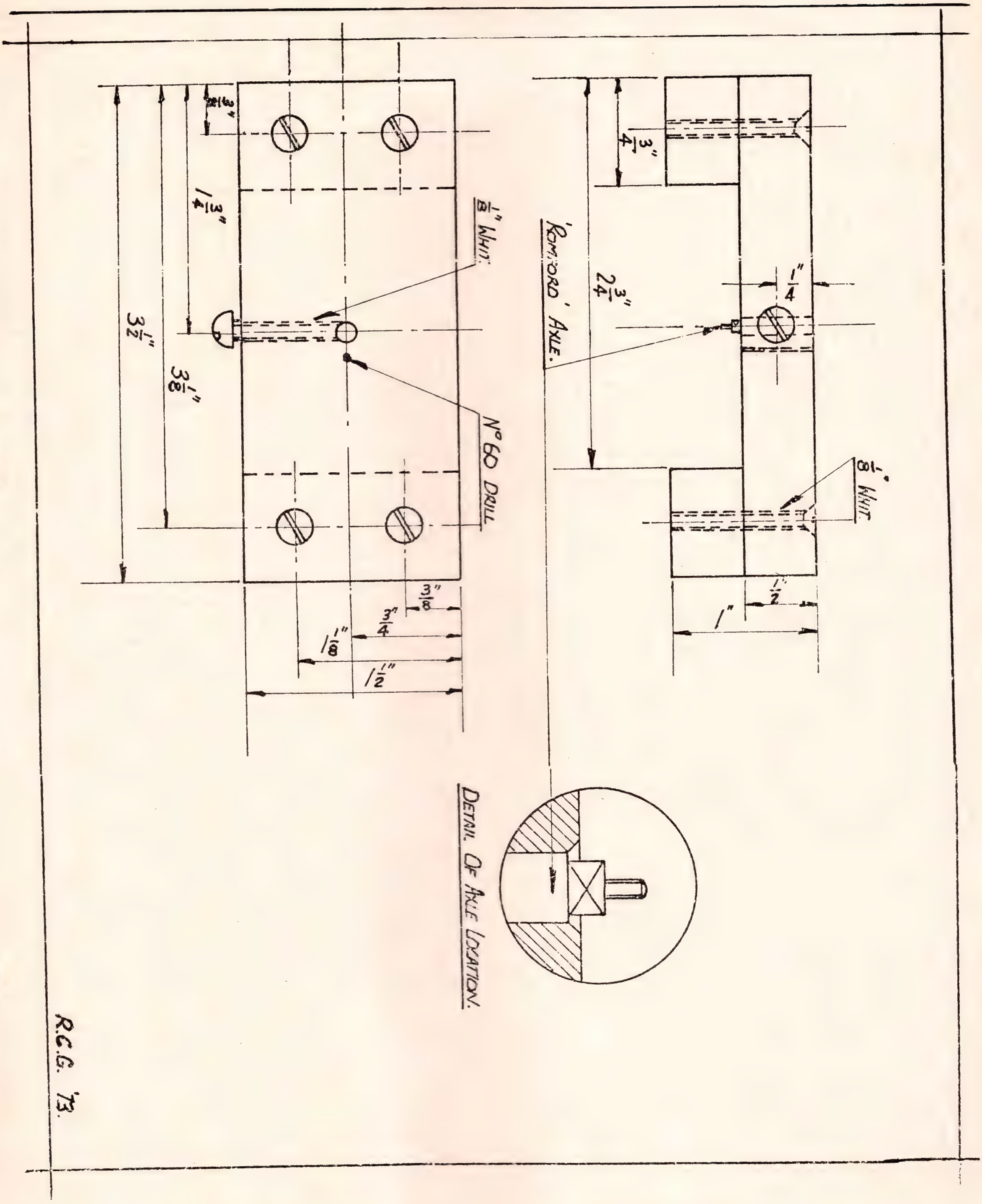
Firstly clamp one of the short pieces on one end of the long one and drill right through No. 40 for the two fixing screws. Before separating the pieces mark them for future identification. Open out the holes in the long piece to ⅛″ dia. and countersink with a ¼″ dia. drill. Repeat these operations on the other end. Now take the small pieces and tap the hole ⅛″ Whitworth. After tapping, clean up all the burrs making sure that the surface is smooth but not distorted. Assemble the components with ⅛″ Whitworth countersunk head screws and the frame of the jig is complete.

We now turn our attention to the locating spigot in the centre of the jig. The hole for the spigot is drilled to ⅛″ dia. Start with a smaller drill, say a number 33 and finish with a ⅛″ drill. This will reduce the tendency for the drill to cut oversize and leave you with a hole that is a sloppy fit on the spigot. Next we turn the frame on its side and drill number 40. After tapping this hole ⅛″ Whitworth, we then turn the frame back and run the ⅛″ drill through the hole again to clean out the burrs.

Take a standard "Romford" driving axle, push it through the hole and position the end so that the shoulder formed by the square is slightly below the surface of the underside of the jig. Nick the other end of the axle with a file, remove and cut to length. Replace the axle with the end flush with the top of the jig and lock in place with a ⅛″ Whitworth set screw in the side hole.

We now come to the final stage. Mount a driving wheel on the square and clamp in position using an axle nut and the "Romford" screwdriver. Turn the jig over and using the dimple in the crankpin boss as centre, drill through the wheel and into the jig with a number 60 drill (or whatever size drill that suits your crankpin). Remove the wheel and continue drilling right through the jig. Deburr the hole and the jib is complete.

In all the above operations, it is essential that that you work carefully and as accurately as possible. It may seem a lot of work to be able to produce one hole, but knowing that all wheels are drilled the same means that there will be less work in getting your chassis to run smoothly and if we can save time on the more arduous facets of our hobby we will have more time for the more enjoyable aspects.


3/4"
1 3/4"
3 1/2"
3 1/8"
1/8" WHIT.
No 60 DRILL
3/8"
3/4"
1 1/8"
1 1/2"
'ROMFORD' AXLE.
3/4"
2 3/4"
1/4"
1/8" WHIT.
1/2"
1"
DETAIL OF AXLE LOCATION.
R.C.G. '73.

THE POP VALVE!

FOR READER'S LETTERS

THE EDITOR.

A.M.R.A. JOURNAL

Dear Sir,

I've been in the hobby for about 15 years now following U.S. prototype and scratch building mostly from Model Railroader articles.

The increasing availability of models of local loco's has whetted my appetite for local equipment and in the past 12 months several N.S.W. type waggons, scratch built from Journal articles (more if possible please!) have appeared on my under construction layout.

The big problem so far has been lack of local knowledge but whilst reading an excellent publication titled "Tunnels on Australian Railways" I came across a reference to an industrial line built early in this century to serve the slate oil deposits at Newnes in the Blue Mountains in N.S.W. Apparently shay locos were used to haul out the oil and as this sounds like an ideal model for a mining spur to build on my layout I've been seeking information on the locos and rolling stock used, plus any general points on the line itself.

I have had no luck so far and I'm wondering whether the advisory panel on pop value readers might be able to help. Any information on the line or sources of further information would be appreciated.

Yours faithfully,
Ron Cunningham

P.S. Do you think Journal could publish an article on underbody detail as this is difficult to find from plans and photographs, etc., when scratch building.

THE EDITOR,

A.M.R.A. JOURNAL,

Dear Rex,

As a non-member of the A.M.R.A. I suppose I am out of line writing to you with suggestions on the A.M.R.A. but your editorial in the Jan.-Feb., 1974 Journal struck a chord with me.

I dropped out of the A.M.R.A. when I found that attendance at the Branch meetings clashed with my working hours and that my only communication with the A.M.R.A would be the Journal. As an advertiser in the Journal I get to read it anyway so there was no point in keeping up my membership just to get the magazine.

In his Branch Notes in the Jan.-Feb. issue, John Harry said there is no excuse for suburban members not attending meetings. Unfortunately I disagree with him; if I was a member I would be a suburban member who **could not** attend the Branch meetings. So I believe this is my excuse for writing this letter. There are, I feel, quite a number of suburban members or prospective members who are in the same boat as myself; they would attend the meetings if they could. Social functions are a different matter; but there is the excuse that they may not have learned what is on. If their only communication is through the Journal, the particular function or functions may be over before they receive their copy of the magazine.

An extreme example of this is shown by the Jan.-Feb. Journal which was received here late May. The last function listed in the Vic. Branch Notes occurred on April 11th.

Likewise the working bees; if the member is unable to attend the Branch meetings how does he find out what is happening and when?

Which brings us back to your editorial, how do the Branches communicate with the country members and unable to attend suburban members?

There are, I suggest, three ways in which extra communication could be established; by letter, by newsletter and by round-robin.

Letters can be time consuming and expensive and they would be better served by a newsletter. However the Branch Secretary could and should send a letter of welcome to each new member in his Branch when and if he receives a list of new members from the Federal Registrar. He should ask the new member if he intends to attend the Branch meetings and if not why the new member cannot attend.

Country members, because of distance and time involved, may not be able to attend. Suburban members because of health or employment may not be able to attend. In these cases the members' names should go on a list for receiving a monthly newsletter. This newsletter would not be sent to members who attend Branch meetings or don't attend but could do so; it is only for those unable to attend.

This newsletter could be as formal or informal as the Branch or newsletter desires. It should be chatty, give advance notice of functions and working bees. In the latter case it should detail what is to be done, where at what time and on what day and who will be in charge. It could include short articles and so forth and would be a good training ground for someone with ambitions of taking over Journal editorship. It should appear at least once a month and could be duplicated rather than printed.

The Newsletter should be under the Secretaries' jurisdiction but not published or printed by him. This should be carried out by a member who regularly attends all functions of the Branch.

The third suggestion is using round-robins. This is not as silly as it sounds. What happens is a group of members, say half a dozen, get together to send material to each other through the post. When a using member receives the bundle of material he retains it for a reasonable time until he has had time to peruse the contents, removes his old material and adds his new stuff and then passes the bundle on to the next member on the list.

Each round-robin circle should have a regular attending member of the Branch participating who would act as a liaison officer with the Branch. He would control the movement of the round-robin, slot in new participants as required and add and substract Branch material.

Should a member wish to participate in a round-robin he would send his name and address to the Branch Secretary who would pass this information on to a liaison officer who has an available slot.

When the liaison officer receives the round-robin he would pass it on to the new member along with the name and address of the next member to receive it. Details of the operation of these round-robins should be worked out by the Branch C-O-M but the idea does work. I was a member of a camera club round-robin once when I was interested in photography and I know it works.

I feel the Branch C-O-M's should be expanded to include a committeeman whose function it would be to look after the outlanders, to control the newsletter, to look after the operation of the round-robins and to do any other tasks involved with this minority group.

The Branch and especially the Victorian Branch should have a Branch meeting at least two or three times a year on a Saturday or Sunday afternoon deliberately slanted towards the country and other unable to attend normal meetings members. Not a social function — not a working bee — but a plain straight out **Branch Meeting.** How about the idea, also, of a Branch Annual Convention?

If there was more for the people in my position and for the country members I know I would re-join the A.M.R.A. and I know the other people in like positions to myself would like to take a greater interest in the Association.

ERN RADDITZ

News from other Clubs

PROSPECT MODEL RAILWAY CLUB

The Annual General Meeting of the Prospect Model Railway Club will be held on the 27th July, 1974 at the clubroom, 31 Adelaide Street, St. Mary's.

Among other items on the agenda for the A.G.M. will be a re-opening of discussion on the need to limit the membership of the Club. It is felt that the Club should only admit the number of members who can be successfully accommodated at a meeting, to avoid overcrowding.

At the last monthly meeting of the Club it was decided to reduce the number of Business meetings to three per year, and give more authority to the committee, which will be enlarged to its original number of five. This decision was found necessary because of the larger membership of the Club, and giving everyone a say at a business meeting held once a month, cuts our running time down quite a bit. We were becoming quite a good debating society.

In lieu of the Club monthly meeting, the committee will meet once a month or when necessary. A suggestion box will be introduced for members to put forward their ideas in writing, for the committee to consider. A copy of the Committee Meeting minutes will be posted on the Notice Board.

The building of our "N" gauge layout is progressing steadily in the absence of its designer, Ray Lockitt, who, unfortunately for us, has recently been transferred to W.A. Club members of his calibre are indeed rare. Tracklaying and the construction of raised and elevated sections are being carried out at this stage.

Our "H.O." layout should be an eye catcher when next exhibited. (Probably at the Lower Town Hall, Sydney, in October.) There have been several changes and additions made to the scenery, brightening it up considerably and giving the layout a face lift. We still have plenty of work that can be done on it, and those members who enjoy this facet of the Hobby are encouraged to give full rein to their creative ability.

Mike Guest, Hon. Sec., P.M.R.C.

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The D.V.R. is dead, long live the Diamond Valley Railway Ltd.

It gives me great pleasure to present to you, my first report, as President of the Diamond Valley Railway Ltd.

On Sunday, 3rd February, 1974, a Special General Meeting was held, at the Clubrooms, Eltham Lower Park. As a result of this Meeting, the Railway was incorporated on the 19th March, 1974. Committee has made arrangements for the dissolution of the Diamond Valley Miniature Railway Club. The first Meeting of the Committee of the Diamond Valley Railway Ltd., was held on Saturday, 29th March, 1974.

An item of interest to the Members which comes to mind is: —

Our Registered Office (for the D.V.R. Ltd.) is situated at C. W. Sterling & Co., Brentwood House Extension, 420 St. Kilda Road, Melbourne. Correspondence and Accounts, however should still be forwarded to the Railway, at its "Home Address", which is: —

P.O. Box 53, Eltham, Vic., 3095.
Phone: 439-1493. A/H.: 25-2110.

NEWS FROM OTHER CLUBS

"THE NORTH SHORE RAILWAY MODELLERS ASSOCIATION, is organizing a Modelling Competition, open to any interested modellers. Cash prizes will be awarded in the following categories: —

1. Locomotives — Scratch Built
2. Locomotives — Kit Built/Proprietary Conversions
3. Rolling Stock — Scratch Built
4. Rolling Stock — Kit Built
5. Scenery/Buildings
6. Misc./Trackwork Signals, etc.

In addition a trophy will be awarded to the entry judged overall best of show.

The judging will be in Mid November, 1974. Futher details to follow in due course.

Meanwhile any interested modellers are asked to contact the Secretary, Doug A. Bocking,
P.O. Box 24, Cambewarra Crescent,
Berowra Heights, N.S.W. 2082.
Telephone: 456 2668."

STOCKTON and DARLINGTON RAILWAY

Celebrating 150 Years of Railway History

The World's first public passenger steam railway train ran from Shildon to Stockton via Darlington on the 27th September, 1825, pulled by George Stephenson's world famous "Locomotion". The train carrying some 600 people but consisting mostly of open coal trucks averaged some 10 miles per hour to cover the 21½ miles.

1975 will see the 150th Anniversary of the historic occasion. Ambitious plans to celebrate this unique event are well advanced under the guidance of a Special Joint Committee of Local Authorities and railway specialists with special town committees to organise events for Shildon, Darlington and Stockton-on-Tees.

The "season of activities" will commence towards the end of June and go on to the end of September. Special points of interest will be Darlington's North Road Station — once part of the Stockton and Darlington Railway — which is to be preserved with the intention of becoming the focal point of Darlington railway history. At Shildon, Timothy Hackworth's cottage will be opened as a small museum, and the last remaining building of the original Soho Works of the Stockton and Darlington Railway will house one of Hackworth's famous engines "Bradyll". Many relics of the 1825 line remain in position along the full length of the Stockton and Darlington Railway. These are being recorded and it is hoped that arrangements can be made for public access to these sections no longer in use and to promote an organised Rail Trail.

At Stockton, the world's first railway ticket office is to open to the public and in the grounds of Preston Park part of the original trackbed will be on display on its original alignment. The North of England Regional Open Air Museum at Beamish near Chester-le-Street will display much of local industrial and railway significance. Here in the museum park a full size working steam replica of "Locomotion" will be in operation.

In the period preceding the anniversary date special weeks of festivity will be organised by the local town committees. From August 4th to 30th Shildon, Co. Durham will be "en fete" to the world. Coinciding with Shildon week a major collection of locomotives and rolling stock will be on show in the British Rail Wagon Works with selected engines in steam each day of the week.

The following week, the scene will move to Darlington where, in addition to the attraction of North Road Station — where it is hoped George Stephenson's "Locomotion" and the Darlington built "Derwent" will be on display — there will be number of exhibitions connected with railways.

Moving towards the climax on the 27th September, there will be a week of special attractions organised by the Stockton Committee. This will include a display of "Industrial" locomotives on various different gauges — probably including working narrow gauge engines, an art exhibition of railway paintings all culminating in a commemorative banquet on the night of Saturday, 27th September, close by where a similar banquet rounded off the day's historic events in 1825.

A number of holiday package arrangements are now being discussed and the Northumbria Tourist Board would welcome enqiuries from railway orientated societies or others interested in arranging for small or large parties visiting the North-East of England in 1975 for this historic railway anniversary.

P.R.O. to the Joint Committee,
140-150 Pilgrim Street,
Newcastle upon Tyne.

WANTED

Can anyone help with the new addresses of the following members whose Journals have been returned?

Mr. R. K. Pilgrim and Mr. C. A. Pilgrim,
8/8 Ewos Parade, Cronulla, N.S.W. 2230

Mr. A. R. McKenna, 16 Park Street,
South Melbourne, Vic., 3203

Mr. B. Legge, 1/140 New South Head Road,
Edgecliff, N.S.W. 2027

Mr. P. Sturmey, 2 Ailsa Grove,
Ivanhoe, Vic. 3079

Mr. R. A. Munn, 1403 Ferntree Gully Road,
Scoresby, Vic. 3179

Rex Little, Editor

ECON MODELS HON3½ QUEENSLAND RAILWAY H WAGON KIT

by Arthur Robinson

This kit consists of floor, 2 sides, 2 ends, 6 bogie side frames, 2 bogie bolsters and 4 pairs of wheels.

The kit is quite easily made up but it is recommended that the modeller sand down the backs of the sides, ends, and the top of the floor.

This sanding is best done by using a piece of sandpaper glued to a flat piece of particle board, or a handy piece of flat rough cement. This gives a flat surface on the parts by rubbing them on the sanding board.

As the model is of an open wagon the floor should be scribed to resemble the timber planking of the prototype.

After this the parts can easily be assembled. The underframe includes a cost brake cylinder and a diagram is supplied showing the position of Queen posts and truss rods and also bogie spacing. The bogie's supplied are cast from the same material as the body, and the six sides are supplied to cover breakages. After assembling two kits no bogie sides were broken.

Although the kit does not include a lot of detail a basic "H" wagon can be built from the kit and modellers can apply the detail to their own satisfaction. No mention is made of buffers in the instructions, but ERG T.T. wagon buffers are suitable for this model.

I feel the kit is good value for the price and every QR modeller should have at least 2 or 3 of these wagons on his layout.

WANTED

O Gauge Rail. Any type, Steel or Brass, Bull Head or Flat Bottom, in useable condition. Contact JOHN McNABB, P.O. Box 109, Boronia, Vic., 3155.